

RESERVE COPY PATENT SPECIFICATION



Application Date: Oct. 28, 1930. No. 32,337/30. **362,607**

" " July 9, 1931. No. 19,733/31.

One Complete Left: July 25, 1931.

Complete Accepted: Dec. 10, 1931.

PROVISIONAL SPECIFICATION.

No. 32,337, A.D. 1930.

Improvements relating to Hose Reels for Fire Hoses.

We, WILLIAM MURCHLAND and JOHN McCALL, both of 9, Bank Street, Kilmarnock, Ayrshire, and both of British Nationality, do hereby declare the nature of this invention to be as follows:—

This invention relates to hose reels for fire-hoses and has for its primary object to provide means whereby, on the unreeling of a hose from a reel the water supply is automatically turned on.

An arrangement according to the invention includes a hose-reel which is mounted to rotate about its axis on a tubular spindle serving as a water supply pipe, there being associated with the spindle a water supply valve which is operated by a lever arranged in the path of a striker mounted on the hose-reel, the arrangement being such that, in the rota-

tion of the reel to unwind the hose, the striker engages the lever whereby the water supply is turned on.

At the outlet end of the tube constituting the spindle is fitted a nipple adapted for attachment of the hose, provision being made for rotation of the nipple relatively to the tubular spindle without leakage of water.

Desirably, the spindle is non-rotary and carries at its outlet end a stuffing gland the outer cage of which is rotatable with the reel, the nipple being coupled to the outer cage.

Dated this 27th day of October, 1930.
CRUIKSHANK & FAIRWEATHER,
29, St. Vincent Place, Glasgow, and
65/66, Chancery Lane, London, W.C.2.,
Agents for the Applicants.

PROVISIONAL SPECIFICATION.

No. 19,733, A.D. 1931.

Improvements relating to Hose Reels for Fire Hoses.

We, WILLIAM MURCHLAND and JOHN McCALL, both of 9, Bank Street, Kilmarnock, Ayrshire, and both of British Nationality, do hereby declare the nature of this invention to be as follows:—

This invention relates to hose reels for fire hoses and is a development of the invention described in the specification of my co-pending application No. 32,337/30.

In the said specification there is described a water supply valve of which the spindle is operated by a lever arranged in the path of a striker mounted on the hose reel and so arranged that, in the rotation of the reel to unwind the hose, the striker engages the lever whereby the water supply is turned on.

An object of the present invention is so to arrange the lever and co-operating striker that the operation of unwinding

the lever is accompanied by an opening movement of the water supply valve and the operation of re-winding the reel is accompanied by a closing movement of the water supply valve.

With this object in view, the lever is so mounted on the spindle of the water supply valve as to provide for a certain amount of lost motion and the lever is so loaded either by gravity or by spring means that, when the striker completes the lever-engaging operation, the lever is caused by gravity or otherwise to perform a slight retrograde movement within the limits of the lost motion and is caused to re-enter the path of the striker so that, when the rotation of the reel is reversed, the striker is again engaged and the valve is either opened or closed according to the direction of rotation of the reel.

Dated this 8th day of July, 1931.

[Price 1/-]

CRUIKSHANK & FAIRWEATHER,

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65/66, Chancery Lane, London, W.C.2,
Agents for the Applicants.

COMPLETE SPECIFICATION.

Improvements relating to Hose Reels for Fire Hoses.

We, WILLIAM MURCHLAND and JOHN McCALL, both of 9, Bank Street, Kilmarnock, Ayrshire, and both of British Nationality, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to reels for fire hoses of the type including a water supply valve which is controlled by the rotary movements of the reel.

In a hose reel constructed in accordance with the invention the water supply to the hose is controlled by a cock or valve operable by a lever engageable by a striker carried by the reel. In a preferred construction the lever is so mounted on the spindle of the cock or valve as to provide for a certain amount of lost motion and is so laded either by gravity or by spring means that, when the striker completes the lever-engaging operation, the lever is caused to perform a slight retrograde movement within the limits of the lost motion and is caused to re-enter the path of the striker so that, when the rotation of the reel is reversed, the lever is again engaged and the cock or valve either opened or closed according to the direction of rotation of the reel.

A hose reel constructed in accordance with the invention is illustrated in the accompanying drawings in which Fig. 1 is a side elevation part section, Fig. 2 a more or less diagrammatic elevation at right angles to Fig. 1, and Fig. 3 a fragmentary detail view drawn to a larger scale.

As shown, 1 denotes the hose reel which is mounted to rotate about its axis on a tubular spindle 2 coupled to a water supply pipe 3 controlled by a cock 4 operable by a lever 5 extending into the path of a striker 6 carried by the hose reel 1, the arrangement being such that, in the rotation of the reel 1 to unwind the hose, the striker 6 engages the lever 5 and effects opening movement of the cock 4 and, in the rotation of the reel 1 to rewind the hose, the striker 6 re-engages the lever 5 and effects closing movement of the cock 4.

The lever 5 is so mounted on the spindle 7 of the cock 4 as to provide for a cer-

tain amount of lost motion and is so engageable by blade springs 8, 9 that, when the striker 6 completes the lever-engaging operation, the lever 5 is caused by one of the springs 8, 9 to perform a slight retrograde movement within the limits of the lost motion and is caused to re-enter the path of the striker 6 so that, when the rotation of the reel 1 is reversed, the lever 5 is again engaged and the cock 4 is either opened or closed according to the direction of rotation of the reel 1.

The tubular spindle 2 is non-rotary, being rigidly coupled to a branch piece 10 interposed in the water supply pipe 3. The outlet end of the spindle 2 enters a stuffing-box 11 carried by the reel 1 and provided with a connection 12 to which is connected the hose 13.

As shown in Fig. 2, the reel 1 is being rotated in the direction of the arrow A to unwind the hose so that the striker 6 engages the lever 5 and rocks it from the position indicated at 5¹ to the position indicated at 5² and effects opening movement of the cock 4. The lever 5 after being disengaged by the striker 6, by virtue of the action of the spring 9 and its lost motion relatively to the cock spindle 7, moves retrogressively to the position indicated at 5³ in which it is again disposed in the path of the striker 6 for engagement thereby to effect closing movement of the cock 4 on reversal of rotation of the reel 1, it being readily understood that, in the rewinding rotation of the reel 1, when the lever 5 reaches the position indicated at 5⁴, it is disengaged by the striker 6 and is restored by the spring 8 to the position indicated at 5¹.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

(1) A hose reel of the type referred to in which the water supply to the hose is controlled by a cock or valve operable by a lever engageable by a striker carried by the reel.

(2) A hose reel according to claim 1 in which the lever is so mounted on the spindle of the cock or valve as to provide for a certain amount of lost motion and is

so loaded either by gravity or by spring means that, when the striker completes the lever-engaging operation, the lever is caused to perform a slight retrograde movement within the limits of the lost motion and to re-enter the path of the striker so that, when the rotation of the reel is reversed, the lever is again engaged and the cock or valve is either opened or closed according to the direction of rotation of the reel.

(3) A hose reel constructed and arranged for operation substantially as hereindescribed with reference to the accompanying drawings. 15

Dated this 24th day of July, 1931.

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Agents for the Applicants.

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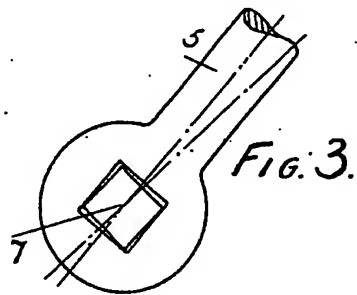
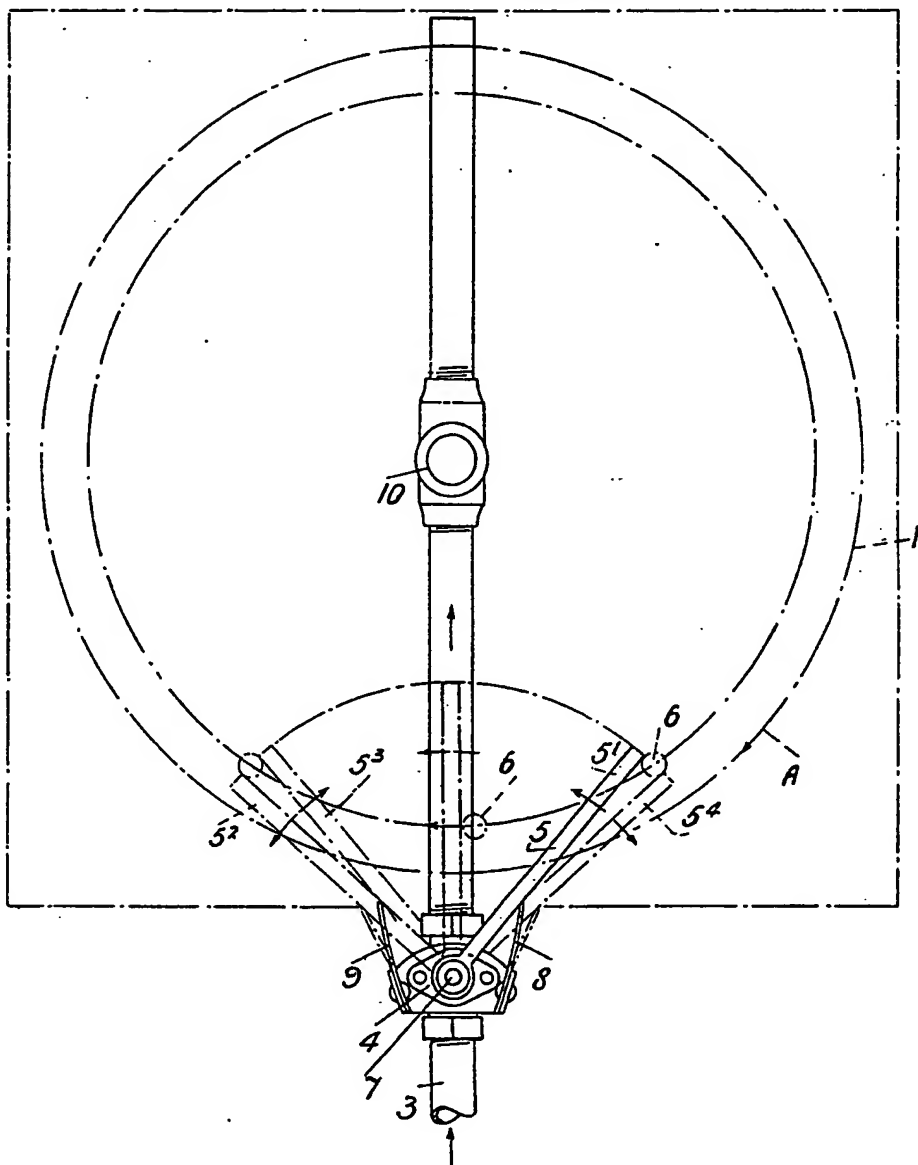


Fig. 2.



[This drawing is a reproduction of the Original on a reduced scale]

Fig. 1.

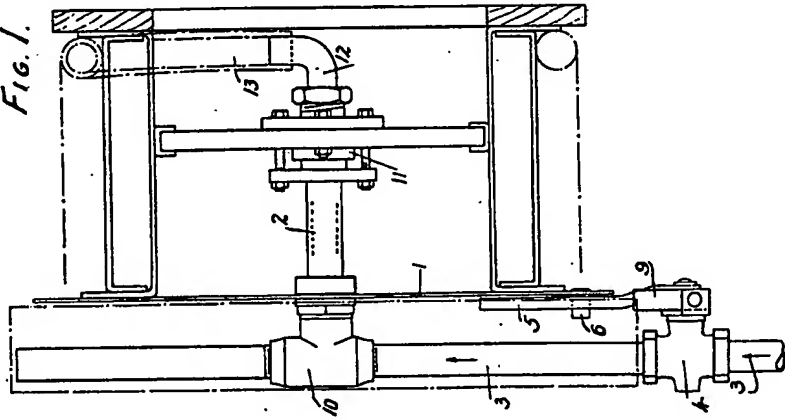


Fig. 2.

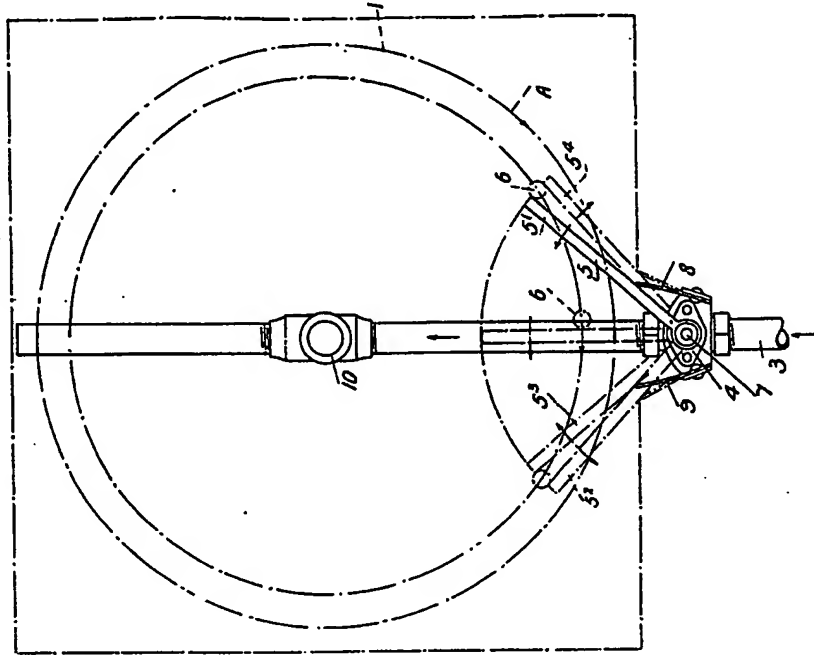
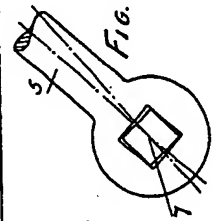


Fig. 3.



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